

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original): A lipid membrane structure containing an anti-membrane-type matrix metalloproteinase monoclonal antibody.
2. (Original): The lipid membrane structure according to claim 1, wherein the monoclonal antibody is present in a lipid membrane, on a surface of lipid membrane, in a internal space of lipid membrane, in a lipid layer, and/or on a surface of lipid layer of the lipid membrane structure.
3. (Original): The lipid membrane structure according to claim 1, which comprises the monoclonal antibody as a component of the lipid membrane structure.
4. (Original): The lipid membrane structure according to claim 1, wherein the monoclonal antibody binds to a membrane surface of the lipid membrane structure.
5. (Currently Amended): The lipid membrane structure according to ~~any one of claims~~ claim 1 to 4, wherein the monoclonal antibody consists of one or more kinds of monoclonal antibodies selected from an anti-MT1-MMP monoclonal antibody, an anti-MT2-MMP monoclonal antibody, an anti-MT3-MMP monoclonal antibody, an anti-MT4-MMP monoclonal antibody, an anti-MT5-MMP monoclonal antibody, and an anti-MT6-MMP monoclonal antibody.

6. (Currently Amended): The lipid membrane structure according to ~~any one of claims claim 1 to 5~~, wherein the monoclonal antibody is a human monoclonal antibody or a mouse monoclonal antibody.

7. (Currently Amended): The lipid membrane structure according to ~~any one of claims claim 1 to 6~~, wherein the monoclonal antibody is a Fab fragment, a F(ab')₂ fragment, or a Fab' fragment.

8. (Currently Amended): The lipid membrane structure according to ~~any one of claims claim 1 to 7~~, which contains a substance for binding the monoclonal antibody to the lipid membrane structure.

9. (Original): The lipid membrane structure according to claim 8, wherein the substance for binding the monoclonal antibody to the lipid membrane structure is a lipid derivative that can react with mercapto group in the anti-MT-MMP monoclonal antibody or a fragment thereof.

10. (Currently Amended): The lipid membrane structure according to ~~any one of claims claim 1 to 9~~, which contains a phospholipid and/or a phospholipid derivative as a component of the lipid membrane structure.

11. (Original): The lipid membrane structure according to claim 10, wherein the phospholipid and/or the phospholipid derivative consists of one or more kinds of phospholipids and/or phospholipid derivatives selected from the group consisting of phosphatidylethanolamine, phosphatidylcholine, phosphatidylserine, phosphatidylinositol, phosphatidylglycerol, cardiolipin, sphingomyelin, ceramide phosphorylethanolamine, ceramide phosphorylglycerol, ceramide phosphorylglycerol

phosphate, 1,2-dimyristoyl-1,2-deoxyphosphatidylcholine, plasmalogen and phosphatidic acid.

12. (Currently Amended): The lipid membrane structure according to ~~any one of~~ claims claim 1 ~~to 14~~, which further contains a sterol as a component of the lipid membrane structure.

13. (Original): The lipid membrane structure according to claim 12, wherein the sterol is cholesterol and/or cholestanol.

14. (Currently Amended): The lipid membrane structure according to ~~any one of~~ claims claim 1 ~~to 13~~, which has a blood retentive function.

15. (Original): The lipid membrane structure according to claim 14, which contains a blood retentive lipid derivative as a component of the lipid membrane structure.

16. (Original): The lipid membrane structure according to claim 15, wherein the blood retentive lipid derivative is a polyethylene glycol-lipid derivative or a polyglycerin-phospholipid derivative.

17. (Original): The lipid membrane structure according to claim 16, wherein the polyethylene glycol-lipid derivative consists of one or more kinds of polyethylene glycol-lipid derivatives selected from the group consisting of N-{carbonyl-methoxypolyethylene glycol-2000}-1,2-dipalmitoyl-sn-glycero-3-phosphoethanolamine, N-{carbonyl-methoxypolyethylene glycol-5000}-1,2-dipalmitoyl-sn-glycero-3-phosphoethanolamine, N-{carbonyl-methoxypolyethylene glycol-750}-1,2-distearoyl-sn-glycero-3-phosphoethanolamine, N-{carbonyl-methoxypolyethylene glycol-2000}-1,2-distearoyl-

sn-glycero-3-phosphoethanolamine and N-{carbonyl-methoxypolyethylene glycol-5000}-1,2-distearoyl-sn-glycero-3-phosphoethanolamine.

18. (Currently Amended): The lipid membrane structure according to ~~any one of claims~~ claim 1 to 17, which has a temperature change-sensitive function.

19. The lipid membrane structure according to claim 18, which contains a temperature-sensitive lipid derivative as a component in the lipid membrane structure.

20. (Original): The lipid membrane structure according to claim 19, wherein the temperature-sensitive lipid derivative is dipalmitoylphosphatidylcholine.

21. (Currently Amended): The lipid membrane structure according to ~~any one of claims~~ claim 1 to 20, which has a pH-sensitive function.

22. (Original): The lipid membrane structure according to claim 21, which contains a pH-sensitive lipid derivative as a component of the lipid membrane structure.

23. (Original): The lipid membrane structure according to claim 22, wherein the pH-sensitive lipid derivative is dioleoylphosphatidylethanolamine.

24. (Currently Amended): The lipid membrane structure according to ~~any one of claims~~ claim 1 to 23, which reacts with a membrane-type matrix metalloproteinase on a tumor cell membrane.

25. (Original): The lipid membrane structure according to claim 24, wherein the tumor cell is an MT-MMP expressing cell.

26. (Currently Amended): The lipid membrane structure according to claim 24 or 25, wherein the tumor cell is a cell of fibrosarcoma, squamous carcinoma, neuroblastoma, breast carcinoma, gastric cancer, hepatoma, bladder cancer, thyroid

tumor, urinary tract epithelial cancer, glioblastoma, acute myeloid leukemia, pancreatic duct cancer or prostate cancer.

27. (Currently Amended): The lipid membrane structure according to ~~any one of claims~~ claim 1 to 26, which reacts with a membrane-type matrix metalloproteinase of a neoplastic vessel.

28. (Currently Amended): The lipid membrane structure according to ~~any one of claims~~ claim 1 to 27, wherein the lipid membrane structure is in the form of micelle, emulsion, liposome or a mixture thereof.

29. (Currently Amended): The lipid membrane structure according to ~~any one of claims~~ claim 1 to 28, which is in a form of dispersion in an aqueous solvent, a lyophilized form, a spray-dried form or a frozen form.

30. (Currently Amended): A pharmaceutical composition comprising the lipid membrane structure according to ~~any one of claims~~ claim 1 to 29 and a medicinally active ingredient and/or a gene.

31. (Original): The pharmaceutical composition according to claim 30, wherein the medicinally active ingredient and/or gene is present in a lipid membrane, on a surface of lipid membrane, in an internal space of lipid membrane, in a lipid layer and/or on a surface of lipid layer of the lipid membrane structure.

32. (Currently Amended): The pharmaceutical composition according to claim 30 ~~or 31~~, which is in a form of a dispersion in an aqueous solvent, a lyophilized form, a spray-dried form, or a frozen form.

33. (Currently Amended): A method for estimating an amount of monoclonal antibody against an anti-membrane-type matrix metalloproteinase contained in the lipid

membrane structure according to ~~any one of claims~~ claim 1 ~~to 23~~, wherein a competitive reaction against an antigenic substance caused by both of an enzyme-labeled monoclonal antibody, prepared from the monoclonal antibody against a membrane-type matrix metalloproteinase by a known method, and the lipid membrane structure is detected by an enzyme immunoassay technique.